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ABSTRACT

The final report of the study group is the culmination of a three-year project to examine the similarities and differences in German and U.S. higher education access and admissions and the ways in which the two systems can learn from each other. The study consisted of a seminar, plenary meetings in both countries, and commissioned papers and research studies. Specialists from both countries participated. The contents of the final report include sections comparing and evaluating structures and systems, equal opportunity for access and selection, educational articulation, access and employment, and access and the role of government. In each section, recommendations are made for decision-makers in government, industry, and educational institutions concerned with these issues in each country. Appended are lists of the study group members, consultants, and meetings, publications of the study group, and publications and papers generated by the work of the group. (MSE)

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ACCESS TO HIGHER EDUCATION: TWO PERSPECTIVES

A Comparative Study of the Federal Republic of Germany and the United States of America

FINAL REPORT OF THE GERMAN-U.S. STUDY GROUP

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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FOREWORD

Access and admission to higher education have become critical issues in the Federal Republic of Germany and the United States in the last few years—and in a number of other countries as well. While criteria and procedures for determining who should enter higher education are central to the debate, more far-reaching issues are at stake. Who should have the opportunity for higher education and at what period of their lives? Does justice require higher education systems to take into account the failure of earlier schooling adequately to prepare people for college or university entrance? How can access policy and admissions criteria assure the admission to higher education of persons having not only appropriate academic talent, but also those noncognitive qualities needed in their future professional lives?

When more than 15 percent of the age cohort enters higher education, is it feasible and desirable to have an undiversified higher education system in terms of admissions criteria, quality and content of the higher education experience, and teaching methodology? Is equality of opportunity to be secured by *identity* of educational experience for all, or *different* experiences tailored to individual interests and aptitudes? Is the expanding role of the courts in the admissions process a guarantee of justice or a strangulation of institutional administration? What should be the relationship, if any, between higher education admission and employment or working life?

Although both Germany and the United States confront problems of access and admissions to higher education, their situations are similar in some respects and quite different in other respects. The major differences relate to the structures of their higher education systems, the apparent (but not actual) difference in the percentage of the age cohort entering higher education, the degree of centralization in the admissions process, criteria for admission, and student demand for higher education. Among the similarities between the two countries pertinent to access are the fact that both are industrialized, affluent, federally organized, and democratic. Both countries have egalitarian as well as meritocratic goals for access, and admission is highly competitive in certain fields, especially those leading to the higher prestige professions. In both the impact of mass higher education on the research function of universities is a major concern, underemployment of graduates is increasing, and the courts are playing a growing role in admissions.

The initiators of this project saw in the comparability of access problems in Germany and the United States an unusual opportunity for each country to learn from the experience of the other and to examine its own situation in a broader perspective than its particular circumstances and value system permit. It was thought that a comparative study would stimulate different analytical approaches to the study of common problems. The urgency of these problems prompted the establishment in January 1975 of the German-U.S. Study Group on Access to Higher Education, hereafter referred to as the Study Group.

A seminar bringing together a small number of German and American experts in September 1974 at the Villa Hügel in Essen, Germany, was crucial to the undertaking, as the seminar discussions concluded with general agreement that a comparative examination of access problems in both countries would be useful to each. The establishment of the Study Group was made possible by a grant from the

Volkswagen Foundation to the International Council for Educational Development under whose auspices the Study Group carried out its work. Its general mandate was to examine and recommend improvements in the handling of higher education access and admissions in Germany and the United States.

Plenary meetings of the Study Group were held at least twice a year and in both countries. Members frequently took advantage of these meetings to pursue inquiries of their own that were related to the problems in the study. It should also be mentioned that there were a number of meetings internal to each country as well as efforts to be informed about policy and practice in other countries.

In addition to plenary and other meetings, the Study Group commissioned a number of papers and research studies. These included: the role of testing in higher education admissions and the management of a national testing program, the flow of students into a number of European countries and the United States; constitutional law and higher education in the United States and Germany; a conference sponsored by the German Donor Association (*Stifterverband*); admission to medical education in Germany, the United States, and eight other countries based on a seminar held May 1977 in Schliersee, Germany; a German inquiry into problems of admissions in the United States, with a special study on how the access system functions in Massachusetts; and innovations in access in Sweden (admission of persons at least twenty-five years old with four years of work experience, known as 25/4), Britain (the experiment of enrolling persons under twenty-one years of age at the Open University), and Ontario, Canada (the increased emphasis on enrolling part-time students).

It is ICED's hope that this final report will contribute to the ongoing debate on access and admissions, and that it will be useful in decision making in Germany and the United States and to the many people involved in that

complex process. During the three-year period of the Study Group's mandate, its discussions and proposals were taken into account in developments in Germany and some of its suggestions may even have had an influence on the preparation of recent legislation. However, some problems of access and admissions are so difficult and so longstanding that one cannot hope for their early solution. Other problems can be resolved only by action outside education, in society itself. It is nonetheless hoped that decision makers in government, industry, and educational institutions concerned with access and admissions will take note of the thoughts and recommendations of the Study Group.

We wish to record special appreciation to the following: the Volkswagen Foundation that provided the financial resources; the Max Planck Institute for Educational Research in Berlin; the Educational Testing Service in Princeton; the German Fulbright Commission; the Rockefeller Foundation and the Villa Serbelloni in Italy; the many other organizations which assisted in this study; and Mary L. Ryan, director of publications for ICED, and Cynthia Mueller, assistant director, for their editorial guidance throughout the project.

This final report was written by the Study Group Chairman and the Study Director, James A. Perkins and Barbara B. Burn, on the basis of discussions held over the three years of the Study Group's existence. The report was thoroughly discussed and reviewed by the Study Group at its final meeting in December 1977. Although the report is thus not a "committee product," it reflects the thinking of the Study Group. It should therefore be noted that while the Study Group endorses the report in general, no individual member should be considered bound by it on each and every point.

James A. Perkins, Study Group Chairman
Barbara B. Burn, Study Director for the
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Council for Educational Development

I
INTRODUCTION

The opportunity for all qualified persons to enroll in higher education is an essential social policy in the Federal Republic of Germany (hereafter referred to as Germany) and the United States. In Germany it is even guaranteed by the federal constitution (*Grundgesetz* or Basic Law), at least as it has been interpreted by the Federal Constitutional Court. In both countries, but especially in Germany, higher education is perceived as important to achieving a relatively high status and salary. But while higher education is seen as the *necessary* condition for satisfactory employment, increasing unemployment and underemployment show that higher education is not the *sufficient* condition.

In the United States, more than in Germany, higher education is considered important in developing people as whole human beings—in affecting the kind of lives they lead and the quality of the society in which they lead them. This may be less the case in Germany because students there enter higher education at an older age,[1] and attending college or university rarely involves the preprofessional collegiate experience considered very important in the total socialization process in higher education in the United States.

Thus, in both Germany and the United States higher education appears to contribute to a better paid, relatively more prestigious and more fulfilling life for the individual and a better society generally. The fact that a larger proportion of persons from the more advantaged sectors of

society enter higher education than from the less advantaged doubtless accounts to a high degree for their later success in life. But even though higher education is only one and probably not the most important determinant of a person's life chances, the coincidence of having a higher education qualification and subsequent professional success implies a causal relationship between them. Access to higher education is seen as the door to a job.

Every society, even those as affluent as Germany and the United States, must place some limits on the numbers of people who obtain a higher education. This applies chiefly to fields involving costly specialized preparation for professions whose needs for trained persons can be estimated, however imprecisely. Basing admission to these fields on student demand alone is likely to produce an oversupply of trained persons, and would be extravagant in social and human costs. Moreover, because a higher education presumes a minimum level of ability, motivation, and other qualities, an admissions system must be selective. Selection can occur at the point of entry to higher education, or through failing out students deemed unable to complete it successfully. Ideally, selection should be one element in a sorting process through which students pursue the kind and level of higher education suited to their abilities and interests at different times in their lives and in different kinds of institutions. Flexibility and choice for the individual student require differentiation of institutions among which the student can choose. It is the total system of different institutions that must provide the different levels and purposes that match the total needs of all the students qualified for admission to higher education.

The United States now faces a drop in the 18-22-year-old age group and with it a decline in the number of them enrolled in college or university. This decline began in 1976-77 when entering students decreased 9 percent over the preceding year. Although fall 1977 enrollments increased slightly, this involved mainly part-time students,

not entering full-time freshmen. A drop in the birthrate in Germany, which occurred later than in the United States, is expected to affect the demand for higher education by 1985 and thereafter. The immediate problem in that country is, therefore, how to weather the bulge between now and 1985 when capacity in terms of student places will only accommodate the anticipated demand of qualified students if (1) facilities are maximally utilized, (2) the study period required to complete a degree is restricted in order to move students more swiftly through the system, and (3) a variety of measures permits a temporary overutilization of staff and other resources.

Access and admissions involve quite different problems with a diminishing college and university age cohort. Financial pressures to sustain enrollments can erode standards in admissions, the quality of teaching, and faculty time and support available for research—and hence the research role of the university. Alternatively, a diminished college and university age cohort can permit better staffing ratios, quality in teaching, and more scope for research. Access policy can seek more effectively to identify and recruit talented students from among those sectors of society so far encouraged less and aspiring less to enroll in higher education: the socially disadvantaged, the employed, and older persons—and without necessarily diluting academic standards. With a student body more heterogeneous in age, aims, experience, and academic preparation, the sorting function in an admissions system becomes even more important than selection.

A study of access and admissions to higher education in Germany and the United States carried out in the last few years is likely to have focused on current and imminent problems because of their pressing nature and the rapid pace of change affecting them. However, these circumstances make it all the more important to look well beyond the immediate situation. Also, because problems of access and admissions are closely interrelated to other elements in

an educational system, they cannot be examined effectively in isolation. A change in one part of a system requires change in other parts.

These other elements include: the aims and purposes of higher education both for students and society; the part played by secondary schools in higher education selection and their impact on different criteria and procedures; the exit policy of the higher education system in terms of the employment expectations and prospects of graduates, and the trained manpower needs of society; the extent of differentiation and coordination among institutions in the higher education system and of a corresponding differentiation in access goals, criteria, and procedures; the financing of students and of institutions; and the social policies which constitute the context for policy on access to higher education.

In dealing with these interrelated elements in the access situation in Germany and the United States, this report discusses and sets forth recommendations on: the structure and systems of higher education systems, equality of opportunity and selection, articulation, access and employment, and the role of the government in access, including the impact of the courts. Because the two countries have differences as well as similarities in their historical traditions, social structures and values, and in their higher education systems, one country may be more emphasized than the other with respect to a particular topic. Equal time for each with regard to each topic would distort the important comparability between them.

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1. The age discrepancy between beginning students is the result of average age on entering elementary school above 6.5 years, longer schooling (13 years), and many students repeating one grade, thus bringing the school period to 14 years and, for the males, of fulfilling military service before entering higher education.

II
STRUCTURES AND SYSTEMS

The U.S. and German structures and systems of higher education differ in several fundamental respects. An important difference is that virtually all higher education institutions in Germany are public. In the United States, on the other hand, about one fifth of all students are enrolled in private institutions (down from about one half in 1950), and there is considerable, though decreasing, institutional autonomy, especially in the private sector. Perhaps the most significant difference is the large number and diversity of U.S. higher education institutions in contrast to a much smaller number in Germany, most of which are universities.

The United States

In the United States, of the 3,026 colleges, universities, and branch campuses in 1975-76, over one third were two-year institutions (mainly community and junior colleges);[1] liberal arts colleges numbered 724. There were nearly 500 comprehensive colleges and universities, over 500 small specialized institutions (art, music, engineering, etc.), and fewer than 200 major doctorate-granting institutions. Not only is there multilevel differentiation—the lower division undergraduate studies in the community colleges, four-year liberal arts, postgraduate, and postdoctoral—but also a wide differentiation among institutions at the same level. Undergraduate studies can differ greatly between a major research university and a small liberal arts college; there are

also differences among the many liberal arts colleges, each of which has its individual programs and image; and there are differences even between courses of study within an institution.

The great diversity of U.S. colleges and universities is widely perceived as assuring the opportunity for higher education to all qualified applicants. Everyone should find a place somewhere. However, many college aspirants find the diversity bewildering and do not have sufficient information to make wise choices.

Many people fail to realize that colleges and universities vary in status as does the value of their degrees. The widely endorsed concept that where one attends college is not important minimizes the significance of carefully weighing where to try to enroll as a freshman. It neglects the actual qualitative hierarchy in U.S. higher education. It may penalize the very able students who unwittingly do not seek admission to the first-rank institutions because they do not appreciate how an institution's place in the hierarchy affects the status and employment opportunities available to its graduates. This almost deliberate obscuring of the correlation between the value of the degree and the status of the institution awarding it compounds the reality of unequal access. Moreover, it is even used to justify and perpetuate the qualitative hierarchy among institutions and thus the actuality of unequal access.

The differentiation among institutions in their aims, resources, and programs, which is essential to mass access systems, makes it all the more important to match students carefully with the institutions. There is an unsupportable complacency in the United States that its system functions efficiently and fairly on the basis of self-regulating forces. It is overly optimistic in assuming informed decisions on the part of students on where they enroll, objectivity and fairness on the part of the admitting institutions, and lack of impediments in access. Geography, for

an example, is a deterrent to effective choice that is inconsistent with the opportunity offered by the diversity and number of U.S. colleges and universities. Quotas, higher tuition fees, and diminished access to financial aid discourage students from enrolling in public higher education institutions outside the state of their official residency.

That some 45 percent of students entering higher education in the United States fail to obtain a baccalaureate degree in four years (although 20-30 percent graduate later) suggests a serious mismatch between students and institutions. Also, since older siblings still constitute the most commonly used source of advice on where to go to college, choice is affected significantly by the family's socioeconomic situation, and thus favors the advantaged. The notion of choice, moreover, seems to be contradicted by the fact that the vast majority of beginning students in the United States seek admission to only one institution and actually enter it. Here again, an almost propagandistic emphasis on diversity would appear to obscure what really happens and to affirm students' need for more information and advice on where to apply for admission.

More information is particularly important because the quality and content of the education available varies significantly among U.S. institutions. For example, if one ranks public higher education institutions on the basis of their expenditures for educational and general purposes, median faculty salaries, value of physical plant, and selectivity in admissions (taking into account different levels of investment at the undergraduate and graduate levels) educational resources at the less selective institutions are, not surprisingly, substantially less than at the selective colleges and universities. These institutions, especially the community colleges, are crucial in extending the opportunity to many young (and older) people who otherwise might have no opportunity for higher education at all. But students entering them because of geographic proximity, financial stringency,

or the misapprehension that where one starts one's higher education is not consequential, may never realize a full opportunity for higher education. Their being mismatched in the system can be irrevocable.

The Federal Republic of Germany

In contrast to the complex diversity in the United States, the higher education system in Germany is more uniform. It includes 47 universities, 9 *Gesamthochschulen* or comprehensive universities, 18 *Pädagogische Hochschulen* or teachers colleges, and about 90 other institutions—higher technical colleges (*Fachhochschulen*), and specialized institutions in art, music, sport, etc. The relative identity or uniformity among institutions in the same category, especially but not only among the universities, is in marked contrast to the diversity among U.S. colleges and universities which differ in quality and selectivity in admissions, as well as in academic programs. In Germany differences are among students and professors, not the institutions. Thus, while curricula and courses of study will be basically comparable, academic performance will vary greatly.

Although in terms of the law, at least, there is relatively little diversity in the higher education system in Germany, efforts have been made to introduce some modest variations. These included the launching of the concept of the *Gesamthochschule* and the establishment in 1968 of the *Fachhochschulen,* into which the former partly secondary level *Ingenieurschulen* were integrated. Neither initiative has so far produced major change in the total system. Because the salary and career prospects of graduates of the *Fachhochschulen* remain permanently lower than those of university graduates, these institutions do not offer a sufficiently competitive alternative to the universities. Some 16 percent of *Fachhochschulen* graduates, instead of proceeding into working life, enter the established universities in order to have access to higher careers.

The *Gesamthochschulen* have not yet come into their own for a variety of reasons. These include: lack of support in some of the *Länder*; erosion of the original plan to assign *Gymnasium* (academic secondary school) and *Fachoberschule* (higher technical school) graduates to different tracks; problems of reconciling different salary scales for teaching staff, lengths of study courses and disparate missions in the component units in a single institution; finding formulas to allocate resources differentially to these missions, and political controversy surrounding the concept of comprehensive education. Notwithstanding these difficulties, it is not yet possible to say whether the *Gesamthochschulen* will result in changes in the structure of the traditional universities.

The situation has in fact been changing. As a consequence of legislation in the *Länder*, and also of variations in the efforts of universities to implement recent educational reforms, more differentiation has taken place in the German system during the last few years. However, decisions of the Federal Constitutional Court concerning the right of admission to higher education have made further diversification problematic and affect not only admissions policies but also efforts at educational reform. These decisions called for objective and uniform admissions criteria, the introduction of a centralized admissions procedure, full utilization of existing higher education capacities, and freedom of teaching and research. The impact of the court's decisions has been to reinforce the tendency toward the centralization of higher education which, in a federal system, calls for a high degree of administrative, political, and legislative coordination. It is feared, for example, that the admissions procedure, by treating the course offerings in the same discipline at different universities as identical, tends toward a uniformity in curricula which can threaten quality. Should the recent if limited trend toward diversifi- of German higher education be arrested, and with it the

curricular diversification so essential in a system admitting almost one fourth of an age cohort, the consequences will be extremely serious for the future of higher education—and for the economy and political life of the country.

In Germany, as in other continental European countries, higher education has implied a level and quality of education associated with the traditional elite university rather than a diverse spectrum of institutions and programs. Higher education has also implied or assumed a secondary education offering a common and relatively identical preparation for higher education to only a minority of the relevant age group. When, however, secondary education enrolls a significant proportion of the age cohort in programs which give access to higher education, and secondary school students and curricula become more diversified (a recent development in Germany; some decades ago in the United States), a diversified postsecondary system is a necessary consequence. The institutions in which these students enroll need to reflect the diversity of the students' interests and abilities.

Because the German educational tradition assumed that all *Abiturienten* (*Gymnasium* graduates) were equally able and had had a basically uniform secondary education, successful completion of which entitled them to university admission, universities were assumed to be basically equal. Otherwise there would not be equal opportunity for equals. Now that *Gymnasium* enrollments and curricula have become more diversified, this has important implications for access and the higher education system.

Diversification of Higher Education Systems

No longer can everyone who has the right of access to higher education be assumed to have equal ability or to have had the same type of preparatory secondary education, especially as the number and types of programs preparing for higher education admission have multiplied dramatically in recent years. A diversified higher education

system is now required, and access should also be diversified so that the completion of *Gymnasium* studies or its equivalent should no longer automatically entitle a student to a higher education in the institution and field of his first choice.

Some persons claim that diversity in educational programs which prepare young people for working life should be at the secondary rather than postsecondary level, leaving to the latter the more traditional role of specialized academic training for the few. The U.S. response to mass secondary school enrollments was to diversity postsecondary education, especially through the expansion of community colleges in the last two decades. The proportion of degree credit students enrolled in them climbed from 10 percent in 1955 to 25 percent in 1975. By contrast, Germany and other continental European countries have supported diversity at the secondary level, with some young people in academic secondary schools, others in vocational schools, and still others in a combination of vocational education and apprenticeship training. Diversity at this level may help with the increasingly serious problem of youth unemployment by relating education more closely to employment and by giving young people job experience and contacts. However, channeling a high proportion of young people into programs which shut off access to higher education is inconsistent with mass access when, as in Germany, the higher education credential assures a higher lifelong status and salary than do vocational or apprenticeship training.

Horizontal differentiation—by levels of program or institution—permits differentiation in quality among institutions having the same formal legal status, and makes it possible to offer the highest quality education to the highly gifted without neglecting quality education for the majority. Through vertical differentiation, selection to different fields and disciplines is accomplished and errors in matching students and fields can be rectified by later transfer to

other fields, thus reducing dropouts. Such a differentiated system requires intensive counseling of students and opportunities for them to assess their own achievements, abilities, and interests on a regular basis.

Regardless of emphasis on the highest quality education for senior positions in society, higher education is not always or necessarily the highest quality education for the individual. Senior positions in business and the professions do not need to be staffed exclusively by university trained persons. The cultural life of a nation is not shaped by academia only, but also by art, literature, and the like. For many important positions in society academic training is not necessary. Even if selection criteria for higher education are valid, selection for higher education does not define a person's overall qualities, but only his particular academic abilities.

Horizontal differentiation is rare and recent in German higher education. Apart from the extensive and impressive system of technical and vocational training, part of which feeds into the higher education system through the *Fachhochschulen* (although this was not intended when they were established), there are few alternatives to the established and relatively undiversified higher education system, such as short-cycle programs or institutions offering another option or leading into higher education. The *Volkshochschulen* (adult high schools) make an important contribution to all ages and enroll several million persons annually, but with almost no connection to the formal higher education system.

The *Fernuniversität* (correspondence university) at Hagen in North-Rhine Westphalia, offers degree level work through a combination of correspondence, tapes and cassettes, and personal tutoring at 28 study centers. However, apart from short courses which do not lead to an academic degree, it admits only students with the *Abitur* or its equivalent. It does not extend educational opportunity to persons lacking this qualification. In the fall of 1977, when it

began its third year of operation, it enrolled some 11,000 students. If the *Fernuniversität* is to offer a genuine alternative to the established higher education system, it should be expanded to include the entire country and should eventually admit people without the *Abitur* or its equivalent.

As the foregoing discussion has implied, further diversification requires more blurring of the boundaries between different kinds of institutions as it needs many pathways out of, as well as into, them. A high degree of specialization within particular kinds of higher education institutions and hence a compartmentalization of the system, more the case in Germany than in the United States, is difficult to reconcile with that basic diversity which offers many choices, and facilitates changes in direction for students and institutions. By leaving options somewhat open, there may be more flexibility in the face of an unknown future.

Diversity among higher education institutions in a system is also needed—and this may be its most compelling rationale—so that the system can manage its responsibilities for teaching, research, and service on a rationalized basis. Not all institutions can fulfill these responsibilities equally. The fact that the German university system is formally based on the principle that they can is a major source of its current difficulties. If all universities in a mass access system are considered as major research and graduate training institutions, the level of financial support needed for students and faculty becomes an intolerable burden on the society. Also, the research function of higher education is likely to be threatened if the teaching demands of mass access are evenly apportioned among all institutions. Research may then be driven out and take refuge in independent research institutes. This not only affects university research and teaching adversely, particularly at the graduate level, but also deprives research of the access to talented young people which is so necessary for a highly industrialized country.

The functions of teaching only and teaching combined with research need to be allocated among the different institutions so that the system as a whole can accommodate both functions and at different levels of specialization and advanced work. This is essential as systems move from elite to mass access and the proportion of students in curricular programs not involving research and scholarship comprise most of the students. The resulting differentiation between institutions and programs creates a hierarchy in the system, based on different types rather than degrees of excellence. Only through such differentiation can a higher education system enroll one fourth or one third of the age group, as in Germany and the United States, respectively.

Although institutional diversity is not a goal of public policy, the limited diversity that has begun to emerge makes the choice of university and field of study more consequential to applicants than a few years ago. Young people now have more difficulty in deciding to what institution and in what discipline to apply for admission. The choice of field is important because students in Germany begin their professional participation when they start their university studies and are expected to have chosen their field of concentration before entering. Academic and career counseling at the *Gymnasium* level, however, remain very limited, and students often lack the information and guidance they need to make decisions. If and when higher education in Germany becomes more clearly diversified, such counseling will become yet more vital.

As the foregoing has implied, the higher education systems of Germany and the United States are out of phase. In the United States, mass access has been a fact for three decades whereas in Germany it emerged only in the 1970s. In the United States the enormous diversity of the system may impede both the effective realization of equal opportunity for access and the efficient functioning of the meritocratic principle because so much diversity can excessively

complicate student choice on the one hand, and on the other hand permit institutions to recruit students who might better pursue their interests elsewhere. In Germany the concepts of equality among the universities and in the abilities of qualified applicants precludes efforts to mismatch them in any individualized way. This philosophy is expensive to sustain. Because constitutionally it cannot be admitted that there are degrees of excellence among students or among the universities, mass access is seriously straining a system which primarily consists of theoretically undifferentiated research-oriented universities. Thus, while in the United States the need is to make the existing system work better, in Germany what is needed is basic reform of the system.

Recommendations

1. In both Germany and the United States information and counseling for young people on the higher education institutions and fields to which they might most appropriately apply for admission should be strengthened and expanded. More help is needed so that applicants can make choices firmly based on a knowledge of their own abilities and interests and on the range of possibilities available to them. In both countries better information and counseling programs should also include advice and information on alternatives to higher education.

2. In the United States students should be made more aware that the value of a degree correlates importantly with the status and quality of the institution awarding it. The notion that it is the degree that counts, and not so much where it is earned, must be dispelled so that students' choices are realistic.

3. Geographic limitations on access to higher education in the United States should be reduced. Financial aid should be portable across state and international boundaries, and not restricted to the state of residency. Quotas on

out-of-state and foreign students, and higher tuition fees for them should be reciprocally reduced between the states and, if possible, eliminated.

4. The higher education system in Germany should be deliberately and explicitly diversified so that differentiated opportunities are offered to students with different abilities and interests. No society having mass access to higher education can afford to offer to all students an educational experience of uniform quality. A concern for high talent demands that the most academically able students have the opportunity for an education commensurate with their abilities.

5. With mass access and a diverse student body the functions of a higher education system in teaching and research need to be rationalized as not all institutions can or should offer research-based teaching only. Higher education differentiation in Germany should provide for a mix of functions among the institutions. Research combined with teaching should in principle be reserved to institutions enrolling students with the highest academic ability; resources should be allocated to them at the level necessary to support this mandate.

6. In diversifying its higher education system and criteria for access, Germany should offer more alternatives, including short-cycle and adult or continuing education programs which can lead to degree studies and also admit students without the *Abitur* or equivalent. Consideration might be given to upgrading the *Volkshochschulen* so that at least some of their programs can be considered preparatory to higher education. The *Fernuniversität* should be expanded on a national basis and in the range of courses it offers. It should admit students without the *Abitur* and offer them the chance for a full university qualification.

7. With interinstitutional differentiation and increased diversity among applicants, a centralized system to admit students to higher education cannot assure the match of

students to institutions essential to facilitate and strengthen these features. While a centralized system is useful for processing and expediting the flow of information, the German universities should, themselves, make the final decisions on student admissions.

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1. Community and junior colleges comprise a wide diversity of two-year institutions: public, private and vocational; academic and comprehensive.

III
EQUAL OPPORTUNITY FOR ACCESS AND SELECTION

Every educational system must and does practice selection in access. Not necessarily occurring at the point of entry to higher education, it may take the form of high dropout, optout and stopout from higher education, selection to the academic secondary schools giving access to higher education, successful performance in or mere completion of secondary education, or self-selection regardless of prior educational experience. (This is largely the case with Sweden's 25/4 admissions policy.) In assessing access in relation to structures and systems in Germany and the United States, it is important to recognize that some kind of selection occurs in all systems and to identify the implications of where and how it takes place in terms of the goals of access policy.

As nations achieve increasing affluence, education systems tend to postpone selection in order to keep options for young people open longer, although Germany fits this pattern far less than does the United States. As selection moves up the academic ladder, the point of political pressure moves in step. That point used to be at the entry to secondary education; it is now increasingly at the level of admission to college and university; and in most advanced countries it is now at the gates of postgraduate and professional schools. If all secondary school graduates can enter higher education, meritocratic selection takes place within the higher education system through institutional

differentiation and student dropout—or in the labor market rather than in the educational system.

Selection may have various meanings. If the total system cannot accommodate all qualified applicants and permit them to study in their chosen field, selection involves a decision on whether or not a person may be admitted in that field or will elect another field. If all qualified applicants can be accommodated in their chosen fields, selection then becomes a sorting process, determining if the applicant can be admitted to the institution of his or her first choice. At least in the latter case it is not only reasonable, but in view of the nature of the decision also logical, to leave the decision to the accepting institution, as in the United States, but not yet in Germany.

Selection, Egalitarian Demand, and Meritocratic Need

Mass access to higher education systems—those enrolling more than 15 percent of the age cohort—should respond to both the meritocratic needs and the egalitarian demands of society. Mass access is a reality in the United States, with some 33 percent of the age cohort attending college and university. In Germany, where enrollments have tripled since 1960, the rate is about 20 percent. So, although the system still attempts, but with increasing difficulty, to adhere to the von Humboldt research university model, mass access now exists.

In mass access higher education systems, persons rejected by the more selective institutions and programs should be able to enter less selective or nonselective ones, assuming they have a satisfactory level of talent and motivation. Persons missing the opportunity at the normal entry age should be offered a second chance. The relatively uniform and centralized admissions system in Germany, under which all *Abiturienten* are theoretically eligible for higher education* and under which the actual admission is

*There are restrictions or *Numerus Clausus* in some fields.

done through a computerized system,* does not permit the differentiated access criteria necessary for sorting students between more and less selective institutions and programs. But a greater institutional differentiation has to precede the introduction of differentiated criteria.

Higher education systems which seek to respond to egalitarian demand by providing mass access, as in Germany and the United States, must also meet the meritocratic needs of society. They must identify and recruit high ability persons and provide them with the highest quality education leading toward correspondingly high level occupations and other top positions in society. In a higher education system designed to admit large numbers of young people, high standards on the one hand and egalitarianism on the other require differentiation in the content and quality as well as goals of the various institutions. Thus, in the United States the more outstanding colleges and universities are highly selective in their admissions. Altogether they enroll no more than 15 percent of all students nationally.

Egalitarian demand is used to refer to the desire of a substantial proportion of young people in a society to enter higher education, but not necessarily of the same kind, level, quality, or amount. The existence of egalitarian demand requires that equal opportunity be offered to all aspirants to obtain the kind and amount of higher education commensurate with their abilities and goals. Some limits may be needed, however, in those professional fields for which the training is particularly costly and in which an oversupply of trained persons is likely to produce underemployment and even social disruption and political reactions.

In meeting egalitarian demand it is neither possible nor appropriate that all qualified persons seeking higher education be admitted on the basis of identical criteria, that they

*_Der Zentralstelle für die Vergabe von Studienplätzen_ (ZVS, Central Office for the Distribution of Study Places).

should experience and succeed in educational programs of equal quality, or that on concluding their education they arrive at the same "finish line." Instead, equality of opportunity involves different opportunities for those having different abilities and goals, and hence a differentiated higher education system which offers different kinds and levels of education, starting points, and outcomes. With the student diversity inherent to mass access, equality of opportunity cannot and should not mean equality of result. Rather it means that every individual has the opportunity to be admitted to some institutions in the higher education system and to pursue his/her academic goals as far as his/her abilities permit.

As suggested earlier, a differentiation in institutions and programs in their aims and quality and in their admissions criteria in terms of students' abilities and goals is essential. Otherwise there is likely to be a systemwide deterioration of standards, preventing elite elements from offering the highest quality education to the most able, and serious diminution, if not elimination, of the meritocratic function of higher education. Moreover, if interinstitutional diversity is to function effectively, individual institutions should play an important part in the admissions process. Matching of students to institutions requires that both have a choice even though a centralized allocation system can conceivably respect and reenforce institutional diversity.

The fact that higher education systems have the meritocratic function of identifying, recruiting and training the most able makes imperative a system which selects among students on the basis of ability and also seeks out the most able. It is the higher education system, in another sense, which awards merit or the opportunity for a better life as a consequence of one's higher education (although higher education is not the exclusive channel for this). Merit in this sense can and should take many different forms and meanings, as should the content and aims of

higher education itself. The meritocratic features of higher education as well as the egalitarian demand for it, make necessary a decentralization in which, within limits, the institutions select their students, determine their own aims and curricula, and define the merit they award in terms of the kinds of graduates they produce. Whether all this assures social justice is controversial as it depends on how that is defined for the individual and for the society, and this can lead one into a conceptual jungle.

Access and Admission

In examining equality of opportunity for higher education in Germany and the United States, it is important to distinguish between access and admissions. *Access* refers to overall policy on what kinds of people should enroll in higher education, in what numbers, for what and how long, at whose expense, at what stage or stages in their lives, and in what kinds of institutions. *Admissions* refers to the technical procedures and processes followed to realize the larger goals of access policy. In both Germany and the United States access policy has the objective of offering higher education to all qualified persons and to implementing the meritocratic functions mentioned earlier: maintaining and encouraging the research function of higher education; achieving some degree of mutual adaptation between society's needs for training people and higher education's contribution to this goal; and ensuring that the investment by the individual and by society in higher education has positive consequences for both. An essential difference between the two countries is that decisions on access are mostly decentralized in the United States, and relegated to the roughly 3,000 individual institutions in the fifty states; in Germany there is far more centralization at the federal and state levels and minimal scope for decision making by the individual institutions.

Selection and Self-Selection

The German and U.S. selection systems also differ in that, while both practice a mixture of selection and self-selection for higher education (as do virtually all systems), in Germany higher education is a right, but in the United States it is a privilege for some and a right for others. With self-selection it is the individual who decides whether to enroll; with selection others make the decision. The system accepts and rejects and thereby may permanently restrict a person's life chances. Self-selection, on the other hand, seeks to avoid rejecting applicants. It sets forth such precisely defined criteria that those aspiring to higher education know them; the unqualified do not apply and hence are not rejected. Except for restricted fields, self-selection operates in the United States in the community colleges and other open admissions institutions requiring high school graduation only (nursing is one such field); in Germany self-selection applies to the universities for all *Abiturienten* or equivalent except in *Numerus Clausus* fields. While self-selection superficially may seem to imply a high degree of opportunity for higher education, this depends on the criteria used to define the qualified. In the United States self-selection is available to most if not all high school graduates in that virtually all can be admitted somewhere. In Germany it applies to *Abiturienten* or the equivalent, and they constitute about 20 percent of the age group. Thus, whether a system practices selection or self-selection says little about its actual selectivity and the extent to which it offers equal opportunity for access. If self-selection involves only a narrow and socially determined pool, it can be far more selective in its impact than a so-called selective system offering admission to persons with a range of qualifications.

Access: A Right or Privilege

Access as a legal right rather than a privilege provides a stark contrast between systems, as with Germany and the

United States. The notion of privilege refers to an opportunity which can be denied, in contrast to a right which must be honored. It is somewhat ironic that in Germany, where access is a right, concern centers on how to limit admission. But in the United States, where it is partly a privilege and partly a right, because of demographic trends there is a growing concern with recruiting enough students to maintain enrollment levels. If higher education is a right, does this include the right to admission to a particular discipline and eventually to employment in that field? If a right, selection for higher education does not question whether or not applicants should be admitted because all those qualified must be, but rather asks what is meant by "qualified?" It involves sorting the entitled, not admitting some, and rejecting others. If access is a right, in principle it is the qualified person who decides if he/she will attend postsecondary education. If it is a privilege, then society decides through some agreed system, typically the decision of the individual institutions.

If access is a right for all qualified applicants, admissions criteria defining what is meant by qualified must be objective, neutral, and rational. Access becomes a matter of determining if applicants' qualifications meet these criteria. Such determinations are ultimately justiciable in the courts, and remote from the decision making of the higher education institutions. The claim of access as a right is more likely in systems which select and hence deprive some applicants of access and which reserve the bounties of life—high status, salaries, and security—to the selected. This situation drives the rejected to the courts to challenge the criteria used in selection, thereby transferring the admissions process out of the individual institutions and into the courts.

If access to higher education is a privilege, not a right, institutions and individuals are offered more flexibility in their decisions, especially if the higher education system is

differentiated. Decisions tend to be made at the institutional level, and the system can accommodate all reasonable applicants in one institution or another. Recourse in the face of rejection is to other institutions in the system, not to the courts. The net result may well be that access to higher education is more assured in systems where it is a privilege, as in the United States, rather than a right, as in Germany.

Changing Access and Admissions in Germany

In Germany, the tradition has been for all *Gymnasium* graduates to have automatic access to higher education. As the proportion of the age group enrolling in higher education increased from 4-5 percent in the early 1950s to about 15 percent today plus another 5 percent with *Fachhochschulereife,* there have been increased admissions pressures on the institutions and reduced employment prospects for graduates. Not only have more young people gained the *Abitur,* adding to the admissions pressure, but ways of obtaining its equivalent have also increased, among them evening programs and graduation from the *Fachhochschulen.* These changes coincided with both an increase in the higher education age group and the proportion seeking access to higher education (even though *Abiturienten* intending to enter higher education declined from 89.7 percent in 1970 to 75.3 percent in 1976). These developments ushered in mass access to higher education in Germany. Enrollments in higher education in Germany went up from 291,000 in 1960 to around 900,000 in 1976-77, with projections of 1.2 million or more by 1985 if present trends continue.

At some universities in the early 1970s efforts were made to limit enrollments in the more sought after disciplines in order to prevent overcrowding. The Federal Constitutional Court decision of July 18, 1972, found such limitation unconstitutional and affirmed the right of access for all formally qualified applicants, based on Article 12 of

the Federal Constitution, which grants a right of free access to institutions of education and to choose freely one's vocational and/or professional career. A compact among the *Länder* which became effective in April 1973 established the already mentioned ZVS and rules for selecting applicants for fields of study to which access had to be restricted. The court's ruling called for unifying the requirements for selecting applicants nationally if an insufficiency of student places made selection necessary, even with an exhaustive utilization of capacity. As a result, the procedure of application and admission became completely centralized and out of the hands of the universities. A person wishing admission in a restricted faculty applied to the ZVS which, apart from some 25 percent of places reserved for foreign students, hardship cases, etc., determined admission on the basis of average grades in *Abitur* examinations (for 60 percent of the remaining places) and the waiting period since the applicant completed the *Abitur* (the remaining 40 percent of places).

The emphasis on *Abitur* grades imposed enormous pressures on *Gymnasien* students and teachers, producing a level of competition detrimental to the school atmosphere and disadvantageous to children from lower social groups. The latter also have been penalized by the waiting period since few of them can afford to postpone their professional studies and career. Moreover, the waiting period criterion also intensified crowding at universities as students not admitted to a restricted field enrolled in another until admitted to their first choice. These so-called "parking" students further clogged the system. So did the lengthening of the period before students complete their degree studies—from about four years a decade ago to more than six years today.

In 1979 the admission system summarized above will be changed. The Federal Skeleton (Frame) Law on Higher Education (*Hochschulrahmengesetz, HRG*) passed in late 1975 provided for new admissions criteria to be binding on

all the *Länder.* Up to 30 percent of available study places will be allocated to special categories with slightly lower quotas proposed for medicine, veterinary medicine, dentistry and pharmacy (these are given in parentheses): foreigners 8 percent (6 percent), hardship cases 12 percent, public purposes 4 percent, and applicants who have obtained their qualification for university studies within the system of higher education 2 percent (1 percent).

The main change for the future involves sharply reducing *Numerus Clausus* fields. According to a November 4, 1977 resolution of the heads of the *Länder* governments and the Federal Chancellor, admissions restrictions which require selection among applicants should be retained only for medicine, dentistry, veterinary medicine, pharmacy, psychology, biology, and architecture, and also in the following fields which enroll relatively few students: biochemistry, food technology, home economics, agriculture, and geodesy. New criteria will probably be introduced in 1979 for admission to them. In addition, it was agreed that the numbers to be admitted to fields which lead to teaching positions should be predetermined. Selection by the institutions is prohibited in fields involving admissions restrictions and continues to be inapplicable or irrelevant in the unrestricted fields. In them the universities will admit not in the sense of selecting (or rejecting), but in matriculating the students who choose them, except for students assigned elsewhere by the ZVS in the interest of a reasonable distribution of students in a given field among universities offering it.

For fields in which there is a wide discrepancy between the numbers of applicants and study places, the new system of selection will assign a substantial proportion of places using a lottery weighted on the basis of *Abitur* grades. Another share of places will probably be assigned on the basis of a combination of *Abitur* and newly to-be-introduced aptitude test results. Some places will for a transitional period be reserved for applicants who have

been on the waiting list for an extending period and anticipated admission under the old system. Still others may be for applicants with especially high scores in the *Abitur* or aptitude tests. In all other fields applicants will be admitted as before on the basis of having the *Abitur* or equivalent, although in fields apt to be overcrowded at individual institutions in terms of their capacity the ZVS will allocate students in order to distribute them evenly among the institutions.

The number of fields with restricted admissions will be increased only if in a given field the number of students so exceeds study places available during the preceding semester that without restrictions the university's performance would eventually suffer. In general this will be considered to be the case if students exceed places by 15 percent.

The purpose of the foregoing arrangements is to prevent an expansion of *Numerus Clausus,* to remove admissions restrictions in a number of fields, and to assure that in the future students will know before applying for university study the fields in which selective admissions and geographic distribution systems will apply. Also, the system depends upon precise formulae laid down centrally to determine the number of student places in each university and department nationally, which are based on faculty teaching loads, physical space, and curricular requirements.

Impediments to Access in Germany

Notwithstanding the most recent and earlier efforts to strengthen equal opportunity for access to higher education in Germany, a variety of factors still stand in the way of its achievement. These include early decisions on preuniversity studies, heavy emphasis on a single admissions criterion, inadequate counseling at all levels, and the fact that the higher education system does not comprise selective and nonselective institutions to match the different aims and abilities of students.

The German education system involves early decision on preuniversity studies. At around ten a child (and his/her parents and teachers) decides whether he/she will attend *Gymnasium,* the route normally necessary for university preparation, rather than *Realschule* or *Hauptschule,* neither of which leads to the *Abitur* or equivalent. An education system which in this way calls for early decisions between a secondary education which specifically prepares for higher education and one which virtually shuts the door to it cannot easily claim to offer equal opportunity for access. Such early decisions are apt to be more influenced by the family's socioeconomic circumstances than by the child's ability. Special efforts are not always made to identify the highly talented, but less advantaged, and encourage their enrollment in *Gymnasien* (and in higher education). For the most part this has not been attempted in Germany so far.

With the introduction in 1979 of objective aptitude tests in the selection of students for the reduced number of fields with restricted admissions, the *Abitur* or equivalent will be the sole entry criterion for the estimated 85 percent of students admitted to the other fields in higher education. As the restricted fields are sought after by many young people, competition for grades seems likely to persist in the *Gymnasien* and a major reliance on *Abitur* marks will continue to affect equal opportunity for access. Relying mainly on cognitive criteria for selection in *Numerus Clausus* subjects, such as grades and aptitude test scores, neglects noncognitive qualities. Studies have shown that cognitive indices account at most for only half of college success and speak even less to career success and motivation. A combination of selection criteria is more likely to assure equal opportunity for access as well as meritocratic selection.

A flexible combination of selection criteria is also important to the "compensatory" function of higher

education. This means looking for talent other than that demonstrated by the usual criteria of grades and tests. Any system must enable those with high talent but inadequate academic preparation to have a chance to enter higher education although this does not necessarily involve all institutions in the system. Strong guidance and counseling for young people at all levels—pre-*Gymnasium*, *Gymnasium*, and in the higher education institutions—is essential to identifying such talent and to ensuring equal opportunity. While not yet established, it has now become an important policy objective in Germany.

The implementation of equal opportunity can be measured, if only in an approximate way, by the percentage of students with a working class background in relation to the percentage that workers constitute of the population generally. The percentage of such students has increased in Germany from 6 percent in the early 1950s to 12 percent today, whereas 40 percent of all wage earners are so-called workers. However, these statistics are misleading, because in Germany persons whose jobs would elsewhere classify them as workers (e.g. train conductors and mailcarriers), are categorized as civil servants, whereas many people whose occupations call for a high level of specialized training are classified as workers. More significant may be the fact that the proportion of students from families with a parent who completed higher education has declined from more than half in the early 1950s to only about 25 percent today.

The availability of financial support to students is a major factor in offering equal opportunity for higher education. In Germany a well-organized financial aid system provides a combination of loans and stipends so that students from low income or working families can attend higher education with little or no financial support from their families. Even if in individual cases the public financial aid may not be considered sufficient, working class students

are not deprived of higher education for financial reasons but rather as a consequence of family environment and their early educational experiences.

The earlier chapter on Structures and Systems focused on the need for diversity in higher education if equal access is to be effectively offered, so this needs little elaboration here. The importance of diversity is closely related to the compensatory function of higher education mentioned above. The system should include institutions where highly talented people not meeting the usual criteria of grades and the like can enroll. It should have a sufficient diversity so that persons with different interests and abilities can obtain different kinds and levels of higher education. Diversity is also needed if the total system is to accommodate the kind of bulge in enrollment demand Germany expects to experience until 1990, without impairing the essential and the highest functions of higher education. The German approach of permitting up to a 15 percent overenrollment in all fields and of distributing students evenly throughout the institutions means that all higher education institutions share the burden of overenrollment equally instead of its being concentrated in institutions which focus more on teaching rather than on research and teaching combined. Since this may impair the quality of teaching and research in the entire system, equal opportunity is not provided to the most outstanding students who seek and merit the best.

Access in the United States: Impediments and Criticisms

The process of admission to higher education in the United States contrasts sharply with that in Germany. It too fails to ensure equal opportunity for access, but for different reasons. Rather than having a centralized admissions system and agency, decision making is handled by the individual colleges and universities, although in some higher education systems central coordinating offices or even state legislatures may lay down admissions policies and guidelines

for the institutions. However, it is the institutions which admit their students, and admissions officers are able to exercise discretion in the process. In a seminal essay of 1966[1] B. Alden Thresher referred to admissions as a "great sorting," and his summary of it remains valid today.

> The sorting process, taken in its entirety, is a product of an immense number of individual choices taken by millions of people, under the influence in part of calculations and estimates projected a generation into the future and in part of beliefs, opinions, whims, ancient loyalties, and areas of ignorance scarcely amenable to rational estimate. It is important to note that most of the decisions involved occur outside college admissions offices, not in them. Access to higher education is essentially a social process deeply involved with the society's entire cultural pattern and system of values.

The system for admission to higher education in the United States runs the gamut from high selectivity, as at the Ivy League colleges and veterinary, medical, and law schools, to the first-come, first-serve policy for anyone with a high school diploma or its equivalent, as at the public community colleges (except in fields where demand exceeds capacity, such as nursing). The criteria most relied upon in selective admission to undergraduate study include objective aptitude and achievement tests (the results of which are unfortunately not used enough to help students assess themselves and make realistic choices), high school records, rank in high school class, and statements by high school counselors. The most selective institutions also use letters of recommendation, autobiographic statements by candidates, and, to a lesser extent, personal interviews. For graduate and professional study a comparable battery of criteria is applied which, however, emphasizes prior preparation as well as aptitude for the field of specialization involved. In connection with selectivity, it should be emphasized that selectivity in admissions does not necessarily

correlate with the quality of the institution, as many open door colleges and universities may be of excellent quality.

In her remarks on admissions policies and practices to the German-U.S. Study Group at its May 1975 meeting in Princeton, Vice President Alice J. Irby of Rutgers University distinguished between what she called the actuarial and clinical approaches to decision making on admissions, suggesting the strengths and weakness of each as follows:

> An actuarial approach would involve combining the objective indices such as test scores, high school grades, rank in class, in some fashion which puts the students in rank order in terms of ability, preparation, and potential . . . . The clinical approach involves the subjective examination of the information in a student's record. . . . (The actuarial) policy is impartial but it also implies validity which does not exist in such objective measures. Much more, these measures do not account for many of the global and specialized qualities that contribute to successful experiences in college.

The clinical approach is more characteristic of the private and residential institutions, while the actuarial approach is more to be found in state institutions enrolling large numbers of students. As access to some programs and institutions has become increasingly competitive, and students denied entry have appealed to the courts on the grounds of lack of "equal protection" or "due process" under the 14th and 15th Amendments to the Federal Constitution, pressure has increased for the actuarial approach as an assurance of objectivity in selection.

The more subjective clinical approach is criticized for its discretion and flexibility as being ambiguous, arbitrary, and even deceptive, and hence militating against fairness and equal opportunity. Students are encouraged by institutions to apply for admission on the grounds that the admissions process includes assessments of character, motivation, and

other personal qualities which may tilt the balance or even override such quantitative measures as test scores, class standing, and grades. Applicants less qualified academically by these measures may be admitted over those appearing to be more qualified. Institutions can avoid clarifying their criteria in any precise way by insisting on the importance of various unquantifiable criteria. Secrecy can mask the arbitrariness of decisions based on unverifiable intuition.

This approach has been criticized for not providing candidates with clear information on their chances of admission, for permitting favored treatment of children of alumni/ae and other special constituencies, and for promoting an excessive interinstitutional competition in student recruitment which can mislead candidates. However, these practices have been and continue to be important in access to higher education in the United States. They reduce public political influence, preserve institutional flexibility in admissions decisions, and enable colleges and universities to consider those intangible qualities needed to create a diversified yet coherent intellectual community.

Most important, this approach has enabled institutions to take into account the disadvantaged background of many Americans, especially racial minorities.[2] This has been essential to increasing minority participation in U.S. higher education, although such "affirmative action" may be ruled unconstitutional by the Supreme Court in its decision in the case of Allan Bakke, a white applicant denied admissions to medical school in California, to be decided by mid-1978. The main issue involved is whether giving preference to or allocating quotas for minority groups in higher education admissions violates the equal protection clause of the Constitution.

Open Access in the United States

American access policy is also criticized for an allegedly increasing tendency to admit students who are not qualified,

especially but not exclusively in open access institutions. The result is either to lower the standards of the higher education institutions or to require remedial courses to offset the deficiencies of these students' high school preparation, using scarce resources, including faculty, for a task for which institutions are neither designed nor equipped. If indeed the steady decline in average Scholastic Aptitude Test (SAT) scores since 1963 reflects a lowering of educational standards in the schools (and a parallel decline in admissions standards in higher education), some observers feel that the admissions process is failing to assure a sufficient level of ability in college and university entrants and should be more selective. Opposing such suggestions was the Advisory Panel on the Scholastic Aptitude Test Score Decline of the College Entrance Examination Board which concluded that most of the decline in SAT scores "was related to the 'compositional' changes in the group of students taking this college entrance examination," and that education should probably be more diversified, not less, to offer a diversity of students "meaningful equality of educational opportunity."[3]

Minorities and Women

Despite impressive efforts in the United States to offer higher education to people of diverse backgrounds, equal access remains imperfect for reasons of race, sex, age and employment status, and finance. This applies more to graduate and professional education than undergraduate, but applies to it also. Whereas blacks now enter higher education almost in proportion to the percentage they constitute of the total population, about 12 percent, their college and high school dropout rates are higher, and only 6 percent of students in graduate and professional study are black. Blacks enrolled in the predominantly white medical schools have increased from about 0.6 percent of enrollments in 1967-68 to 5 percent today, and black enrollment in all

medical schools went up from 2 percent of enrollments in 1966 to 6.7 percent in 1976, or slightly over half of their representation in the population nationally. The dropout rate in disadvantaged inner city high schools (usually predominantly black) is some 40 percent compared to the 26 percent of 17-18 year olds not graduating from high school nationally. As this fact implies, the chief problem with black enrollments—at all levels—is not that their transition rate to the next educational level is lower than the white majority's rate. The problem is one of persistence, since at all levels the proportion of blacks dropping out is larger than the comparable white majority.

Women now outnumber men in higher education, but doctorates awarded to women are only slightly over one third of those awarded to men. Only about one fifth of medical students are women (up from 9 percent six years ago). Although adult students (twenty-five and older) constitute close to one third of all college and university students, many obstacles to access confront older students and the employed: higher tuition since they are typically part-time students and are required to enroll in the often more expensive continuing education programs; admissions criteria which bear little relation to the capabilities which these students bring to higher education; calendars and class scheduling that discourage part-time study, and academic reward systems which deter faculty from teaching in continuing and adult education programs.

Financial barriers also impede equal opportunities for access. Even though federal and state financial aid to students has expanded impressively in the last few years, especially since the Higher Education Amendments of 1972, financial aid is not enough to equalize the economic factors affecting students' choice of where to enroll. The residential colleges, especially the highly selective ones, cost significantly more than institutions within commuting distance of a student's home. The objective of Federal aid is

to permit a student to enroll in higher education somewhere, not to make possible a totally free choice. Moreover, while federal aid is now crucial to the college attendance of the poor, children from middle income families are caught in a squeeze, neither poor enough to qualify for public aid nor rich enough to afford college without it.

Recommendations

1. In both Germany and the United States more information, guidance, and counseling should be provided to young (and older) people about opportunities for higher education, academic programs which most effectively prepare for it, and alternatives to higher education, including vocational education and employment. The most important function of the preadmission information should be to explain to students their own ability level so they can make realistic choices when applying for higher education admission.

2. As early decision for different education streams in secondary education in Germany is one of the major obstacles to increasing access to higher education, measures should be taken to postpone the decision and permit reexamination and revision of early decisions, for example, by transfer to *Gymnasium* from *Realschule* and *Hauptschule*, and expanding alternative paths to higher education, including the *Abendgymnasium* and full-time *Kolleg*.

3. At the secondary level in Germany, efforts to strengthen equality of opportunity should not be limited to those institutions and paths which are unanimously accepted by the public, but should include measures which might be controversial for reasons other than their contribution to the goal of equal opportunity. Proposals to expand *Gesamtschulen* (comprehensive secondary schools) to full-day instead of half-day schedules, to encourage attendance by working class children and to improve programs

for children of foreign workers (*Gastarbeiter*) to enhance their opportunities for higher education, should not be easily dismissed.

4. In the United States the relatively high dropout rates from secondary education of students in inner city schools and of black students generally should prompt more special efforts to reduce them by providing extra needed resources and motivational stimuli.

5. In neither Germany nor the United States is sufficient effort made to identify highly talented young people and encourage them to pursue secondary and postsecondary studies that will develop their talents to their highest capacity. In both countries some combination of guidance, financial support as necessary, special academic programs, and visible recognition of the highly talented should be implemented.

6. Lack of financial aid should not limit access to higher education. Although provision for this has improved significantly in both countries in recent years, in the United States it should be made more portable across state boundaries and possibly accessible to students of middle class families. In Germany, where the financial aid system also works reasonably well, the level of aid should be kept more in balance with the rate of inflation, relatively limited as this is.

The following recommendations are addressed separately to each country because of major differences in the obstacles to equal opportunity for access in each.

The United States

The United States has gone far in improving equal opportunity, but more effort is needed. The following recommendations are addressed to this need.

7. Minority participation in graduate and professional education should be encouraged. Even though it may take generations, and for some minorities may be unrealistic,

the ultimate goal should be an enrollment that approximates the distribution of minority individuals in the pertinent age cohort of the population.

8. More effort is needed to encourage women to pursue professional and advanced graduate study, recognizing that this involves many complex issues, including the role of women in the family and society. The major focus needed, of course, is in the early education of girls and boys. At the college and university level there should be more career counseling, financial support which takes into account the special needs of women with children, and a greater flexibility in the scheduling of academic programs and the timing of degree requirements, including part-time graduate study.

9. The enrollment of minority and female students in the higher status professional fields—medicine,[4] law, and the sciences (in contrast to education and the liberal arts) should, within constitutional limitations, be accorded more attention than in recent years. As more qualified women and minority individuals become available, they should be appointed faculty members in these fields so that they can stimulate women and minority students to aspire to professional achievement in these fields.

10. Deterrents to degree enrollment by older, employed, and other nontraditional students should be reduced. More flexibility in the scheduling of classes, in residency, and other degree requirements geared to full-time students, should be the norm, not the exception. Older students returning to higher education after an extended stopping or dropping out should not be impeded from reentry by an earlier record of low or mediocre achievement as this vitiates the concept of second chance.

11. Persons returning to college or university who advanced their education in the interim, but not in an academic institution, should be granted appropriate academic credit for previous learning. Efforts now underway to

develop and strengthen criteria and procedures for assessing prior learning should be intensified.

12. Selection to competitive professions such as medicine, is caught between pressures for uniform objective criteria in accordance with the equal protection clause of the Constitution and the need to seek criteria relevant to society's need for different kinds of highly trained professionals coming from different backgrounds. The uniform application of mainly quantitative criteria based on objective tests and educational records tends to produce limited student diversity in terms of minority representation and such factors as motivation, skills, and career goals. A major priority should therefore be to identify procedures and criteria consistent with constitutional limits which can contribute to this diversity in professional school admissions, and allow a necessary degree of institutional autonomy in the admissions process.

The Federal Republic of Germany

To extend equal opportunity for access in Germany the primary need is to diversify the higher education system. The recommendations below mainly focus on this goal.

13. In order to assure equal opportunity for access to higher education in Germany, the system should be differentiated and decentralized. The individual institutions should make final decisions on admitting students so that the best possible match between students and institutions can be achieved within a differentiated system.

14. The *Abitur* or equivalent should no longer automatically guarantee eligibility for higher education. It should instead merely certify secondary school completion and should be awarded at the end of twelve years of schooling rather than thirteen.

15. In those fields in which selection among applicants is necessitated by an excess of applicants over student

places, a number of selection criteria should be introduced and applied also to prevent excessive concentration of students at individual institutions in the system.

16. Objective tests, designed to serve some or all of the following purposes, should be introduced: to help in comparing results in *Abitur* examinations on a national level; to provide *Gymnasien* and other institutions offering the equivalent to the *Abitur* with information to help them in preparing students; and to provide the students with more information about themselves.

17. Selection or distribution decisions should be made on a combination of criteria as experience has shown that this approach offers more predictability on academic performance than using one criterion only. They should include the results of *Abitur* or comparable examinations and objective tests, practical experience (which also can give insights into one's proposed occupation), and interviews and other measures of noncognitive qualities. Together these various criteria should provide a reasonable symbiosis of uniform and objective criteria on the one hand, and flexible consideration of the applicant's individual attributes on the other. This approach should make it possible to avoid a lottery system, which although not unreasonable in deciding between applicants whose examination records differ minutely, is questionable from the point of view of motivating young people.

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1. B. Alden Thresher, *College Admissions and the Public Interests.* New York: College Entrance Examination Board. 1966.
2. Racial minorities should, in fact, not be lumped into a single category as the participation rate in higher education is high for some, especially Japanese-Americans and Chinese-Americans.
3. *On Further Examination, Report of the Advisory Panel on the Scholastic Aptitude Test Score Decline.* New York: College Entrance Examination Board, 1977, p. 45.
4. The largest barrier for women entering a medical career is the current rigidity of residency training programs which make it difficult for women to combine marriage and parenthood with a career.

IV
EDUCATIONAL ARTICULATION AND ACCESS

Articulation in the educational systems of Germany and the United States presents a major contrast because of the differences in secondary and higher education. According to one German observer, there is no formal articulation between secondary and higher education in the United States because completion of secondary school in America is no assurance of either the ability or academic preparation needed to handle college level studies; in Germany this has been an assumption of the system. Articulation in the German scene has until a few years ago meant that in effect the *Gymnasien* admitted students to higher education by certifying their eligibility for it through granting them the *Abitur.* In that successful completion of *Gymnasium* studies carried with it automatic admission to university (until *Numerus Clausus* had to be imposed in overcrowded fields), there was not so much an articulation between *Gymnasium* and university as an uninterrupted continuum. In fact, until a few years ago some 95 percent of *Abiturienten* proceeded to university.

In the United States articulation involves the careful fitting of two separate though related institutions, high school and college, and it is through the complex, differentiated admissions process that the optimum fit is sought for the student and for the institution. When successful, this fit means that the higher education experience dovetails with and builds on the secondary schooling. Hence, the importance of the student's knowing in what college or

university this might best happen, and of the institution's admitting students whose secondary education laid a foundation on which the higher education institution could build without detours, duplication, switch-backs, or disappointment for either the institutions or students. Articulation in this sense denotes a harmonious meshing, a close and continuing relationship between secondary and higher education assuring that the transition is effective and constructive. This kind of articulation becomes increasingly important with the shift from elite to mass access to higher education, and hence has a longer tradition in the United States than in Germany.

Problems of Noncomparability of the Systems

Articulation also differs fundamentally between the United States and Germany because different stages in the educational process do not correspond. Preuniversity education in Germany involves thirteen years in contrast to twelve in the United States, and the average age of entering university students in Germany is around 21; in the United States, excluding nontraditional and other adult students, it is around 18. In Germany beginning university students are the equivalent of U.S. sophomores or even juniors as they have completed their general education and on entering higher education embark on specialized professional training. Students in German universities are therefore not exploring what their higher education will be, and in what field to concentrate, but pursuing the path chosen when as final year students in *Gymnasien* they applied for admission to higher education.

To apply to the German university system the American notion of interinstitutional transfer is therefore misleading. The German tradition of *Lehrfreiheit* has encouraged students to study for a semester or year at another university than the one they entered and obtain their degree from. (Recently this trend has declined due to pressure on

students to complete their studies in minimum time.) But this hardly compares with the U.S. situation in which numbers of community college students—and increasingly those at four-year institutions as well—transfer to a second institution after completing their two-year lower division studies. Also, there is no counterpart in Germany to the U.S. phenomenon of students who, on completing the Bachelor's degree and continuing into postgraduate or professional studies, enroll in another institution, although in fact postgraduate education development in the United States was strongly influenced by the German university.[1] As most German higher education is professionally oriented and lacks the different levels of Bachelor's and Master's programs, there is not the same break corresponding to the Bachelor's-Master's transition, although German students may on completing their basic professional degree—more like the Master's than Bachelor's degree—do further advanced work at another institution. Thus, the professional, specialized higher education curricula in Germany and the absence of multilevel institutions and programs so characteristic of the United States, with its community college system, deter lateral transfer and mobility.

Articulation Problems in Germany

The advent of mass access in Germany is now testing the system as never before. With a larger and much more diversified student body whose preparatory studies for higher education are now much more diversified, many now are less certain about their academic and career goals. An estimated 20 percent of university students change their field of concentration after entering university even though this is increasingly discouraged because it prolongs the period in university and exacerbates overcrowding. Restrictions on changing one's field are not, however, the ideal strategy; instead, much more information and counseling should be available to young people before and after they enter

higher education in order to help them to make lasting decisions.

More fundamentally, the goals of higher education should be redefined to recognize the more diverse student population as well as their changing employment prospects and interests. With mass access the German higher education system should offer more flexible programs involving a broader liberal education not necessarily aimed at employment but responding to the desire of the individual for self-development. This is more urgent for the *Pädagogische Hochschulen* so that the education they provide to their graduates prepares them not for teaching careers only but offers a general education program, useful in a variety of occupations and in living one's life quite apart from paid employment.

Behind the *Gesamthochschule* as initially conceived was the notion that combining in an umbrella institution different kinds of higher education—the traditional university, higher technical training, teacher preparation, and other specialized fields—would make it possible for students in these different branches to take certain common courses together. More importantly, the *Gesamthochschule* was intended to enable students who changed their interests and goals after beginning their higher education to shift over to another field or professional trade more easily than if they had to enroll in a totally different institution, and from scratch. That *Fachhochschulen* graduates who enter university must start at the beginning with no credit given for work accomplished at the *Fachhochschule* impedes the lateral and vertical mobility needed to rectify initial errors in choice of fields and institutions, and further crowds the system. As higher education in Germany adapts more to mass access, this greater flexibility becomes increasingly necessary in order to give more choice to students and flexibility to the system.

Articulation Problems in the United States

In the United States a primary link in higher education articulation is considered to be the transfer of students from community colleges to four-year institutions. One German observer has pointed out, however, that the transfer process is vastly overrated in terms of ensuring quality of access opportunity.[2] Far fewer community college students ultimately transfer to four-year institutions than the number entering with this intention. This may have positive aspects, such as students deciding instead on full-time employment or realizing that college does not suit their abilities and interests. This phenomenon is also a result, however, of the deficiencies in articulation between two-year and four-year institutions and of the higher dropout rate in community colleges (attributed in part to lack of residential facilities and limited student participation in college life). Nor do students at the community colleges or four-year institutions either (significant transfer occurs between the four-year institutions) have sufficient information and counseling to arrive at well-informed decisions on transfer prospects and opportunities. Given the imperfections of the transfer system, there is some validity to the claim that enrolling large numbers of students in community colleges, and entrusting to the transfer process the responsibility for extending these students' educational opportunities, is used by the system to evade the problem of equal opportunity. Because the less selective institutions—most community colleges as well as some other colleges and universities—have fewer educational resources per student than do the selective—claims that the transfer process from community colleges to four-year institutions assures equal opportunity for higher education are all the more vulnerable. Few community college students achieve the academic preparation and motivation necessary to transfer to and complete a degree in the most selective institutions.

On the basis of experience in Germany and the United States articulation between secondary and higher education, and within the higher education system itself, works better when the more advanced stage does not impose precisely defined requirements on the education provided at the preceding level. Requirements set forth in general terms facilitate flexibility in articulation. For example, the transfer of community college students to four-year institutions is much more likely when their lower division courses are automatically accepted as fulfilling degree requirements and are not analyzed to determine if they correspond exactly to freshman and sophomore courses in the four-year institution. A community college student's prior academic experience is fully accepted and the chief concern is to identify what additional courses are needed for the four-year institution to certify that the student has achieved a higher education meeting its graduation standards.

Recommendations

1. The effective articulation between secondary and higher education and within an education system depends upon flexibly defined courses of study. If the chief aim of articulation is to integrate and relate different kinds of educational experiences, requiring an identical educational background of students who transfer between institutions in the system is antithetical to a basic purpose of articulation which is to permit interinstitutional differences to persist and to enrich the total educational system.

2. If a major objective of articulation in education is to maximize opportunities for education, young people need as much information and counseling as possible on choices open to them at those important articulation points in the system. This includes the transition from secondary to higher education and all stages in the system which involve choices on academic and career options, so that decisions

can be firmly based on the person's self-knowledge and a full realization of where the alternatives will lead and what they will require.

3. In the United States high school students should be made more aware of the imperfections of the interinstitutional transfer in higher education and of the relative merits of the higher education opportunity which community colleges offer so that students do not underestimate the importance of the quality of the institution at which they begin their higher education. Their first academic experience will affect their preparation and motivation for continuing and hence their total higher education experience and career prospects. Community and four-year institutions should make every effort to assure that their students contemplating transfer are well informed and prepared.

4. Better articulation in Germany calls for more flexibility in curricula throughout the higher education system so that the more diversified students entering higher education from diverse socioeconomic backgrounds have a wider range of choices in higher education. These should include courses of study which relate to the individual's need for self-development as well as to changing opportunities in the labor market. Programs of general education should become an integral part of the choices in higher education both to facilitate the personal educational goals of students and to give them the flexible foundation on which a range of professions and occupations, many only now emerging or not yet perceived, can be based.

5. More diversity among, as well as within, institutions in Germany is an essential step to better articulation. Especially pressing is the need to link different institutions and curricula so that students deciding to shift their field of concentration or their institution can build on their previous educational experience without having to double back and duplicate academic work carried out earlier and elsewhere.

6. In general, if articulation is not to penalize the more diversified students now seeking higher education in Germany and the United States, lateral and vertical transfer and mobility should be encouraged. The basic assumption of the institution or program to which a student transfers should not be to ensure that the student completes a study program identical to that of its entering students, but that he or she masters that knowledge essential to gain its degree.

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1. To a considerable extent through the leadership of Daniel Coit Gilman, first president of Johns Hopkins University, graduate education there and elsewhere emulated the German model. Its emphasis on research, rigorous scientific methodology, and the seminar as a means not simply to teach but to create knowledge, made a lasting imprint on advanced education in the United States. This was especially true in medicine.
2. Ulrich Teichler, *Admission to Higher Education in the United States: A German Critique*. New York: International Council for Educational Development, 1978.

V
ACCESS AND EMPLOYMENT

In recent years students and society have become increasingly disenchanted with higher education in both Germany and the United States. It has appeared to ensure less to students the professional opportunities they had expected, and less to society the continuing productive growth of the economy in the 1960s. As postindustrial societies, Germany and the United States must recruit and train large numbers of talented persons for leadership and managerial positions to meet national demands for a diversity of top level talent. As wealthy nations, both countries can afford a major investment in higher education and, until the recent international economic decline, could fund it on the basis of social demand without competing social causes imposing major constraints. But if the pay-off to the individual and to society is questioned in terms of employment and the economy, the opportunity—and cost—of higher education is subjected to much closer scrutiny by both. Such has become the case in Germany and the United States.

This has been particularly true of Germany. The tradition is still strong in Germany that higher education admits young people of presumed high ability who, on completion of their studies, staff certain well-defined professions, such as medicine and teaching and the intermediate and higher "cadres" of the public service. Now, with mass access, the traditional employment expectations of graduates can no longer be met. This has been the case in the United States

much longer, and an important rationale of higher education admission is therefore questioned. As mass access replaces elite, or as a selective higher education system gives way to one combining the selective and nonselective, admissions systems and curricula need to adapt to larger enrollments and to a greater diversity in applicants and their occupational prospects.

Employment needs and prospects should not alone dictate access policy. These cannot be predicted precisely enough to offer useful guidelines for access policy. But also, basing access on employment neglects many other important contributions of higher education to the individual and to society. Among these are informed consumerism, more commitment to marriage and parenting, and heightened skills in interpersonal relations generally, creative and varied use of leisure time, a greater sense of civic responsibility, and better physical and mental health.[1] To take these factors into account as well as the need for highly trained persons and egalitarian demands for equal opportunities, modern industrialized societies seem to need places in a differentiated postsecondary education system (according to the U.S. definition of a postsecondary education system) for somewhere around 25 to 30 percent of the age cohort.[2] Enrollment capacity should not be limited to labor market demands for graduates, allegedly about 20 percent of the age group in the United States. Furthermore, changing societal conditions make unreasonable and unreliable any efforts to link different kinds of jobs in any precise way with numbers of years of education.

If graduates have rigid expectations regarding their future careers, status, and salaries, an increased number of graduates is bound to produce underemployment in relation to these expectations. The close coupling of higher education qualifications and job expectations also places severe pressures on the admissions process, on secondary school students and their teachers, and on college and

university students. This is particularly true in Germany where the close linkage between a higher education qualification and employment has traditionally assured to graduates who enter the public service (over 60 percent typically) high salaries and status as well as job security for life. Just as the *Abitur* has certified all *Gymnasium* graduates for entry into higher education, so have higher education qualifications credentialed graduates for employment and at a high level. The *Abitur* has therefore, except for those few *Abiturienten* not proceeding to higher education (less than 10 percent until recently) or not completing their university studies (15-30 percent of entrants) served as a ticket for life instead of being one of a series of selection points to identify the more and less able and to direct them toward higher education programs and institutions and careers corresponding to their different abilities and interests.

As long as the number of persons having a higher education degree exceeds the number of available jobs that fit their expectations, graduates' career expectations need to be more flexible. The tradition that a university qualification entitles a person to a certain job with a fixed salary scale should be modified, and the jobs in the civil service and the public sector for which higher education is considered important should be expanded.

For reasons stated earlier, policy on access to higher education should not be based on employment projections, except in the case of very costly fields such as medicine. However, market forces, that is the numbers of graduates seeking jobs versus jobs available to graduates, should be allowed to affect employment prospects and career patterns. The experience of a number of countries, Sweden for example, has shown that with mass access to higher education, the salary differentials between persons with higher education and the labor force generally narrows. Public policy can help solve the problem by encouraging salary changes and by explaining the reasons for the

diminishing differentials in salary and status for college graduates.

The heads of the federal and state governments in Germany in their resolution on safeguarding educational opportunities for the high birthrate year cohorts of November 4, 1977, agreed in the following statement that the traditionally close linkage between higher education and employment should be modified:

> The chiefs of government emphasize that due to the sharply increased number of university graduates, in the future one will no longer be able to count on achieving superior social status or a high income level as a result of a completed university education. Where education is seen only as the means for improved professional opportunities, the chiefs of government advise against undertaking a university education in the coming years. On the employment market the distribution of jobs will depend increasingly on achievement and competition.[3]

As this statement implies, mass access must carry with it the notion that a higher education makes a variety of contributions, only one of which is to credential graduates for employment. The logical next step in Germany is to diversify the higher education so that it can more explicitly make these various contributions.

Recommendations

1. Although the labor market and employment prospects for graduates should influence a higher education system, especially in curricular and institutional diversity, it is neither desirable nor feasible to base higher education enrollments and admissions mainly on projections of a society's future employment needs. With possible exceptions, such as medicine, reliable forecasts of future needs of trained persons are insufficiently reliable to use as guidelines for admissions and enrollment. If at all applicable,

these forecasts should not be based on a stable interchangeable definition of labor places. Determining enrollments and access primarily on the basis of employment needs is not desirable as it may lead to the neglect of the many other important contributions which higher education makes to the individual and to society which enhance the quality of life of both.

2. The increased diversity of students seeking higher education in both countries have different personal and career goals and represent a widening range of ability (more recently in Germany than in the United States). To meet this growing diversity, the German higher education system should include not only courses of study which educate for the top professions, but which are also oriented toward the educational development of the individual in terms of civic values, aesthetic appreciation, informed consumerism, and personal fulfillment.

3. In the framework of increased differentiation in higher education, curricula in Germany should be planned which relate to professions and occupations other than those that now recruit graduates, for example, the middle level professions. Because of a growing oversupply of teachers and in the interest of a more flexible education generally, curricula which prepare for the teaching profession should be broadened in scope.

4. The diversification of higher education should include the ways in which it is made available to different kinds of people seeking it. So that employed persons seeking to renew, upgrade, or add to their professional qualifications can enroll in higher education, evening, vacation, and correspondence courses should be offered. Their locations should be more accessible to such students than established higher education facilities. Although some progress has been achieved in the United States in diversifying how and where higher education is made available to employed persons and adapting it to their interests, more

TABLE 1
Persons in the Experienced Civilian Labor Force, 16 Years and Older by Type of Current (Most Recent) Occupation, 1970
(numbers in thousands)

	Number	Percent	
Total	76,807		100.0
Occupations:			
Typically requiring first professional degree (M.D., D.V.M., LL.B., J.D., etc.)[a]	1,060	(8)	1.4
Typically requiring doctoral degree (Ph.D., Ed.D., etc.)[b]	1,661	(12)	2.2
Typically requiring (of new entrants, at least) a bachelor's or master's degree[c]	10,791	(80)	14.0
Total, requiring 16+ years	13,512	(100)	17.6

a. Includes lawyers and judges, physicians and related medical practitioners, and college professors or instructors in these areas.

b. Includes other college professors or instructors, natural and social scientists.

c. All other occupations identified by the Bureau of Labor Statistics are ones for which a college education is required or desirable.

Source: U.S. Bureau of Census, Census of Population 1970, Subject Report PC (2)-7a, *Occupational Characteristics* (1973, Table 38, pp. 582-592).

effort is needed. In Germany the higher education system has moved little in these directions, and much more effort is required.

5. Changes in the content, goals, and methods of making higher education available should bring about changes in the expectations of graduates and of employers. This applies especially to Germany. Starting salaries of German university graduates are high, and the differences between starting salaries of those who have either a shorter or more protracted period of study are unjustified and negatively influence the development of the needed differentiation in the system. Employers in both the public and private sectors in Germany should employ university graduates in positions which in the past did not require a higher education. The kind and level of job that a person obtains and his/her career progress should no longer depend on having a particular higher education qualification but rather on achievement and competition.

6. In both Germany and the United States public policy should endeavor to increase general awareness of the fact with increasing numbers of graduates, differentials between their salaries and status and those of the labor force generally should and do diminish and should encourage changes in this direction.

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1. Howard R. Bowen, *Investment in Learning: The Individual and Social Value of American Higher Education.* San Francisco: Jossey-Bass, Inc., 1977.
2. In 1970 17.6 percent of occupations in the United States typically required 16 or more years of education as shown in Table 1 (page 60). In 1974-85 it is estimated that 21 percent of job openings will typically require 16 or more years of education as shown in Table 2 (page 62).

   To estimate the needed entrance places for 25 to 30 percent of the age cohort, one has to allow for the following:
   - Equivalent degrees for unemployed spouses;
   - Dropouts before or after a degree;
   - Extra competition to get degrees and jobs, which will place some downward pressure on salary levels for the educated segment of the labor force, bringing more equality in income and

social status, and some upward pressure on effort and productivity.

Although in principle the needs for a country like Germany will be of the same order of magnitude, in translating the consequences for Germany one should be aware that the postsecondary educational systems in the United States and Germany differ quite substantially. There are many functions in the United States which are clearly postsecondary, but in Germany belong to the secondary system itself or are parallel to it.

TABLE 2
Projected Job Openings for Entrants and Reentrants to the Labor Force Who Have College Degrees, 1974-85
(numbers in thousands)

	Number	Percent
Total	**12,100**	**100**
Reason:		
Growth	3,500	29
Replacement	6,500	54
Upgrading	2,100	17

Source: Bureau of Labor Statistics Bulletin 1918 (1976, p. 20).

Projected total job openings – 57,600,000 (same source).
12,100 is 21 percent of 57,600.

3. Der Bundesminister für Bildung und Wissenschaft, "Beschluss der Regierungschefs zur Sicherung der Ausbildungschancen der geburtenstarken Jahrgänge," *Informationen bildung wissenschaft*, Pressereferat. Bonn: November 17, 1977, p. 215.

VI
ACCESS AND THE ROLE OF GOVERNMENT

Both the Federal Republic of Germany and the United States are democracies and have federal systems of government. That they are democratic means that solutions to problems of public policy, including higher education, must be worked out in the public forum with all the complexities that entails. In both countries the federal constitution (Basic Law in Germany) assigns jurisdiction over education to the states. However, in recent years increasing centralization has significantly strengthened the federal role, and in the United States the private sector has not been immune to this development.

In the United States the expanded federal role has largely resulted from the federal spending power, so far mainly implemented through federal support of research and capital investment in higher education and most recently of students' educational costs. Since 1950 the budget for postsecondary education of the Office of Education, U.S. Department of Health, Education, and Welfare, has soared from $5 million to $460 million in 1960 and to $2,738 million in 1976. However, the importance of both the private higher education institutions and of private support to both public and private higher education should not be overlooked. Private support amounted to $2.4 billion in 1975-76 (an 11.6 percent increase over the preceding year). This represents about 5.4 percent of the total expenditures of colleges and universities.

In Germany the federal level has—on the basis of the Constitution—always had legislative authority to provide support for scientific research. The federal government began to have more influence on the universities through its contribution to their capital investments as a result of agreements with the *Länder* in 1964 and 1969. The federal government also has legislative authority for the "social promotion" (financial support) of students and implements this through need-based loans and scholarships.

A constitutional amendment adopted in 1969 opened the door to an increased federal role in higher education by giving to the federal government a "Framing Authority" authorizing it to lay down general guidelines for the higher education system. There is no equivalent legislation in the United States which explicitly authorizes a federal role in higher education. Nor does the United States have joint coordinating federal-state bodies corresponding to the Federal-State Commission for Educational Planning and the Advancement of Research in Germany, established a decade ago.

The *Hochschulrahmengesetz* (HRG) was adopted in late 1975 by the Federal Parliament on the basis of the above mentioned constitutional amendment after almost six years of study and debate. The HRG provides for a common general foundation in the further development of higher education in Germany while still permitting the *Länder* to implement their own and hence different regulations to a considerable degree. The *Länder* are required to adapt their state legislation to the HRG within three years, that is, by January 1979. As of late 1977 such adaptive legislation was being considered by the parliaments in nearly all *Länder* and in some had already been put into effect. The extent to which the HRG has had a unifying effect on the higher education system can be judged only after a systematic review of the content and implications of the new laws in the *Länder*. Different traditions as well as differences in

political situations in the state parliaments and governments will prevent a total unification of the German higher education system.

The Federal Constitutional Court has played a major role in higher education development in Germany in interpreting the right to education laid down in the Basic Law and what this means in terms of the free selection of the field of studies and institution at which a student wishes to pursue higher education. As has been pointed out, a decision of the Federal Constitutional Court resulted in the establishment of the ZVS at Dortmund to allocate students in *Numerus Clausus* fields among the universities. The universities are required to utilize fully their facilities for accommodating students. In the last several years more than 1,000 students were admitted to medicine alone by decisions of the courts. The courts have based their decisions primarily on calculations of available student places and have themselves made these calculations.

The increasing role of the judiciary in admissions is a phenomenon in the United States as well, although involving far fewer cases than in Germany. In the United States the already mentioned Bakke case may have a critical impact on higher education admissions. The expanded role of the courts, a fact in Germany and increasing in the United States, calls for uniform criteria uniformly applied. This may make it more difficult to consider admissions decisions among applicants which do not lend themselves to quantitative assessment. This will be a problem in the United States but not in Germany until the diversification of higher education needed there is a reality.

In the United States as in Germany (but only to a limited degree in both), the federal government affects access by providing funds for the physical facilities of colleges and universities and hence influences the number of places available. A major difference, however, is that in Germany the federal and *Länder* governments determine the total

number of places (and in November 1977 reaffirmed the Planning Commission's long-term goal of 850,000 places in the higher education system). In the United States, on the other hand, neither the federal nor the state governments separately or together arrive at fixed enrollment numbers. The existence of private sector institutions is an important factor in this situation.

Nor does the federal government in the United States determine access criteria for higher education, other than through decisions on affirmative action policies related to women and minorities. These were launched in the 1960s and since in order to extend equal opportunity in higher education. It has been asserted that a national consensus then held that discrimination on the basis of race and sex was contrary to the Constitution and that it was the federal government's responsibility to eliminate such discrimination. In contrast to Germany there is no constitutional right to education in the United States, although some states regard access to higher education as a right.

In both countries the federal government's encouragement of and support for extending higher educational opportunity has been relatively recent and significant and has set parameters for state action. But in Germany, where the freedom of the academic and the high status of the universities have been viewed as central to the notion of higher education, the universities have until recently had such decentralized administrations that as the role of government increased, the universities could not muster sufficient countervailing influence to preserve their institutional autonomy and role in determining higher education policy. The record in the United States varies among the states, but state systems of higher education reacting to pressure from public bodies have tended to be an important force in the uneasy balance between institutional autonomy and state coordination.

Recommendations

1. In both Germany and the United States support for financial aid for students and for expansion of physical facilities in higher education institutions as enrollment demand requires are important to assuring access to higher education and should continue to be made available.

2. In both countries programs to ensure equal access to those elements in the population that need special encouragement and assistance to enroll in higher education should be vigorously pursued. Whether or not a person aspires to higher education depends in large measure on the family environment during childhood. Therefore public policy to ensure access, especially to the disadvantaged, should include social measures to improve the home and educational environment of children in the less advantaged segments of society.

3. Although the courts play a needed role in access to higher education, it should be the educational authorities and institutions, not judges, that determine how criteria for admission to higher education are defined and implemented. Because of the complexity of the role of the courts in Germany, the implications of the above recommendation are elaborated below in more detail for that country.

Probably the most serious and so far intractable problem in admissions in Germany is the expanding role of the courts, which to some extent has converted issues that essentially involve higher education policy into legal issues. As higher education is a state monopoly in Germany, as university credentials have traditionally been extremely important to the quality of a person's life, and as demand for access has mushroomed in recent years, it is not surprising that the resulting social stress is perceived as having a constitutional dimension.

The constitution, however, speaks to all branches of government, and to some degree the judiciary should respect the judgments of the political branches on the implementation of the constitution's commands. The Federal Constitutional Court has perhaps provided a needed impulse for reform, but further "constitutionalization" of the problem poses a grave threat to its resolution. So long as the complex access problem in Germany requires experimentation, operating flexibility, and political compromise, there are limits on the extent to which problems that have major operational and political dimensions can be solved by the courts. The increase in available study places, the greater differentiation within higher education, and the rationalization of the admissions process could substantially change the social situation that produced the constitutional stresses in the first place.

VII
CONCLUSION

The basic recommendations of this report have been presented at the conclusion of each chapter. The following more general recommendations deal with wider issues.

1. The state of knowledge on predicting career success is limited and cannot yet be taken into account in selective admissions. More funds and expertise should be allocated to research on selection criteria appropriate to diverse exit as well as access policies so that admissions systems can be more effectively oriented toward the demands of professional life.

2. Decisions on access policy should not be based primarily on predictions of higher education enrollments derived from data on the size of the age group. Not only are forecasting techniques imperfect, but more important, the nature of higher education and its relation to other aspects of society is not sufficiently understood to be used as the basis for access policy. As was stated and documented in *Recent Student Flows in Higher Education,*[1] only about 20 percent of the variations in participation rates in higher education in the OECD member countries in the 1950s and 1960s could be explained on the basis of changes in the size of relevant age groups. Enrollment demand is far more complex than mere projection of the age cohort. Considerations of employment prospects, salary differentials between graduates and nongraduates, the unreliability of extrapolating a demand ratio based on past demand, the

unpredictable impact of educational policy aimed at affecting demand—the loose and changing set of correlations between higher education development and major social and economic factors lying outside the system—mandate caution in linking access policy to any specific elements within or outside of higher education.

3. The complexity of higher education and its relationship with outside forces should be seized as a positive element in evaluating access policy. It should help affirm that isolated measures relating to access may be neither wise nor effective. It is important to avoid making many changes at the same time, and for all time. If awareness of these considerations results in more attention to what higher education should be "in *qualitative* and *structural* terms," if quantitative indices are recognized as narrow, simplistic, and insufficient by themselves (although nonetheless useful), then finally due priority might be accorded to such policy issues as who should enroll, why, for what, and with what expectations and concomitant responsibilities on the part of the individuals and the institutions.

1. Ignace Hecquet, Christiane Verniers, and Ladislav Cerych, *Recent Student Flows in Higher Education.* New York: International Council for Educational Development, 1976.

APPENDIX I

Study Group Members, Consultants, and Meetings

Members

James A. Perkins, Study Group Chairman
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Barbara B. Burn, Study Director
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Eberhard Böning
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John Z. Bowers, M.D.
President, Josiah Macy, Jr. Foundation

Frank Bowles (deceased 1975)
Consultant, International Council for Educational Development

Ladislav Cerych
Director, Institute of Education, European Cultural Foundation, Paris

Gertraud Hasemann, German Study Group Coordinator

Karl G. Hasemann (deceased 1975)
Secretary General, Federal-State Commission for Educational Planning

Clark Kerr
Chairman, Carnegie Council on Policy Studies in Higher Education

Hans Leussink, Karlsruhe University

Larry Simon, Law Center,
University of Southern California

William W. Turnbull
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Consultants

Ernest W. Beals
Associate Director, College Entrance Examination Board, New England Regional Office

Urbar Dahllöf
Professor, University of Uppsala, Sweden

Michel Debeauvais
Professor, University of Vincennes (Paris VIII)

Ralph A. Dungan, 1975-76
Chancellor of Higher Education, State of New Jersey

Hans Egli
Professor, University of Bonn

Stella Greenall
Advisor to the Secretary of Education, Department of Education and Science, Great Britain

Heinz Grombach
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Vice President, Rutgers University

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Erhard Olbrich
Psychology Seminar, University of Cologne

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Ulrich Teichler
Max Planck Institute for Educational Research, Berlin

Virginia B. Smith
President, Vassar College

Robert Wood
Former President, University of Massachusetts

Study Group Meetings[1]

September 26-28, 1974, Villa Hügel, Essen
February 12, 1975, Bonn
May 1-4, 1975, Princeton
October 22-25, 1975, Munich
March 4-6, 1976, Munich
November 7-9, 1976, New York City
May 7, 1977, Schliersee
December 9-11, 1977, Princeton

1. Not included in this list were separate meetings of each country's members and special meetings with consultants.

APPENDIX II
Publications of the Study Group

Recent Student Flows in Higher Education Ignace Hecquet, Christiane Verniers, and Ladislav Cerych, 1976	$2.50
Barriers to Higher Education in the Federal Republic of Germany Willi Becker, 1977 (Written in 1976)	$2.00
Admission to Medical Education in Ten Countries Barbara B. Burn, editor, 1978.	$6.00
Admission to Higher Education in the United States: A German Critique Ulrich Teichler, 1978	$5.00
Innovations in Access to Higher Education: Ontario, Canada; England and Wales; and Sweden Robert M. Pike, Naomi E.S. McIntosh, and Urban Dahllöf, 1978	$10.00
Access Policy and Procedure and the Law in U.S. Higher Education Jenne K. Britell, William B. Schrader, Alice J. Irby, Simon V. Keochakian, and Larry Simon, 1978	$6.00
Access to Higher Education: Two Perspectives. A Comparative Study of the Federal Republic of Germany and the United States of America Final Report of the German-U.S. Study Group, 1978	$2.50

Distributed by: Interbook Incorporated
13 East 16th Street, New York, New York 10003

APPENDIX III
Additional Publications

Albert, Lee A., "Justiciability and Theories of Judicial Review: A Remote Relationship," *Southern California Law Review*, Vol. 50: (1977), 1139-1177.

Bahro, Horst, *The American System of Access and Admission to Higher Education: A Criticism from a German Point of View.* Paper presented to the German-U.S. Study Group, 1977, mimeograph.

Beals, Ernest W., *A Report on the Policies, Practices, and Procedures in the Admission of Students to Public Higher Educations in the State of Massachusetts.* Paper presented to the German-U.S. Study Group, 1976, mimeograph.

Bice, Scott H., "Standards of Judicial Review under the Equal Protection and Due Process Clauses," *Southern California Law Review*, Vol. 50, No. 4 (May 1977), 689-718.

Burn, Barbara B., "Access to Higher Education in the Federal Republic of Germany and the United States," in *International Review of Education*, 22 (No. 2, 1976), 193-201.

Burn, Barbara B., "German-U.S. Study Group on Access to Higher Education: Major Issues," in Barbara B. Burn, ed., *Access, Systems, Youth and Employment.* New York: International Council for Educational Development, 1977, 3-16.

Burn, Barbara B., "Learner-Centered Education in German Universities," in *International Education.* 5 (No. 1, 1975), 21-29.

Cane, Alan, *Experiments in Access to Higher Education in Great Britain.* Paper presented to the German-U.S. Study Group, 1975, mimeograph.

Duckenfield, Mike. *Innovations in Access in Sweden.* Paper presented to the German-U.S. Study Group, 1975, mimeograph.

1. Commissioned by the Study Group

Educational Testing Service. *How ETS Administers a National Testing System.* A paper prepared for the German-U.S. Study Group, 1975, 2 vol.

Horowitz, Harold W., "The Autonomy of the University of California under the State Constitution," *UCLA Law Review,* Vol. 25, No. 1 (October 1977), 23-45.

Karpen, Ulrich. "University Admission Criteria: Some German-American Comparative Observations," in *International Review of Education.* 22 (No. 2, 1976), 203-221.

Keochakian, Simon V., *Practical or Experiential Learning in American Higher Education.* Paper presented to the German-U.S. Study Group, 1977, mimeograph.

Kirkaldy, John, *Innovations in Access to Higher Education in Australia.* Paper presented to the German-U.S. Study Group, 1975, mimeograph.

Lehr, Ursula, *The Interview as a Diagnostic Procedure.* Paper presented to the German-U.S. Study Group, 1975, mimeograph.

Michel, Lothar, *Kurzfassung des Forschungsberichts, Hochschuleingangstest für das Studienfeld Medizin,* durchgefuhrt im Auftrage des Bundesministers für Bildung und Wissenschaft, Mannheim, August 31, 1977.

Morgan, George, *Experiments in Access in France.* Paper presented to the German-U.S. Study Group, 1975, mimeograph.

Olbrich, Erhard, *The Introduction of Achievement and Aptitude Tests for University Admission.* Paper presented to the German-U.S. Study Group, 1975, mimeograph.

Rahn, Hartmut and Günter Trost, *Report on a Visit to the Educational Testing Service, Princeton, New Jersey, June 15-30, 1976.* Paper presented to the German-U.S. Study Group, 1976, mimeograph.

Schaffernicht, Annemarie, *Numerus Clausus, Eine Bibliographie.* Frankfurt am Main: Deutsches Institut für Internationale Pädagogische Forschung, 1976.

Siddiqui, Nigar J., *Access to Higher Education in the Commonwealth of Massachusetts.* Paper presented to the German-U.S. Study Group, 1976, mimeograph.

Simon, Larry G., *An Introduction to Canada's Higher Education System.* Paper presented to the German-U.S. Study Group, 1975, mimeograph.

Simon, Larry G., "Racially Prejudiced Government Action: A Motivation Theory of the Constitutional Ban Against Racial Discrimination," Symposium on Motivation Analysis in Constitutional Law, *San Diego Law Review* (fourthcoming).

Teichler, Ulrich, "Problems of West German Universities on the Way to Mass Higher Education," in *Western European Education.* 8 (Nos. 1-2, 1976), 81-120.